

## TRIMMED MEAN PLOT

### PURPOSE

Generates a subsample trimmed mean versus subsample index plot.

### DESCRIPTION

The subsample trimmed mean is the mean of the data with 100p1% of the data deleted from the bottom and 100p2% of the data deleted from the top of the ascending- ordered data set. The trimmed mean plot is used to answer the question: "Does the subsample location change over different subsamples?" It consists of:

Vertical axis = subsample trimmed mean;  
Horizontal axis = subsample index.

In addition, a horizontal line is drawn representing the full sample trimmed mean. The appearance of the 2 traces is controlled by the first 2 settings of the LINES, CHARACTERS, SPIKES, BARS, and similar attributes.

### SYNTAX

TRIMMED MEAN PLOT <y> <x> <SUBSET/EXCEPT/FOR qualification>

where <y> is the response (= dependent) variable;

<x> is the subsample identifier variable (this variable appears on the horizontal axis);

and where the <SUBSET/EXCEPT/FOR qualification> is optional.

### EXAMPLES

```
TRIMMED MEAN PLOT Y X
TRIMMED MEAN PLOT Y X SUBSET X > 2
```

### NOTE

The analyst usually precedes the TRIMMED MEAN PLOT command with 2 LET commands of the following type:

```
LET P1 = .05
LET P2 = .10
```

where P1 and P2 are both between 0 and 1 so as to indicate the amount of data to be trimmed from the left (bottom) and right (top) respectively. In the example here, P1 = .05 and P2 = .10 indicates that 5% of the smallest data and 10% of the largest data should be trimmed off before forming the mean. Values greater than 1 are interpreted as percents. That is, P1 and P2 could be specified as 5 and 10 respectively.

### DEFAULT

None

### SYNONYMS

None

### RELATED COMMANDS

CHARACTERS	=	Sets the type for plot characters.
LINES	=	Sets the type for plot lines.
MEAN PLOT	=	Generates a mean plot.
MEDIAN PLOT	=	Generates a median plot.
MIDMEAN PLOT	=	Generates a midmean plot.
MIDRANGE PLOT	=	Generates a midrange plot.
WINDSORIZED MEAN PLOT	=	Generates a Windsorized mean plot.
SD PLOT	=	Generates a standard deviation plot.
BOX PLOT	=	Generates a box plot.
XBAR CHART	=	Generates an xbar control chart.
PLOT	=	Generates a data or function plot.

### APPLICATIONS

Quality Control

### IMPLEMENTATION DATE

88/2

## PROGRAM

```
SKIP 25
READ GEAR.DAT Y X
LET P1 = 10
LET P2 = 10
LINE BLANK DASH
CHARACTER X BLANK
XTIC OFFSET 0.2 0.2
YILABEL TRIMMED MEAN
XILABEL SAMPLE ID
TITLE AUTOMATIC
TRIMMED MEAN PLOT Y X
```

